

IN THE UNITED STATES PATENT AND TRADEMARK OFFICEU.S. Patent No.: **7,381,560 B2**

Group Art Unit: 1644

Serial No.: **09/ 911,692**

Examiner: R. Schwadron

Confirmation No.: 8484

Filed: 25 July 2001

Applicant: Darrell R. ANDERSON et al.

For: Expression and Use of Anti-CD20 Antibodies (as amended)

Commissioner for Patents
Attn.: **Certificate of Correction Branch**
P.O. Box 1450
Alexandria, VA 22313-1450

REQUEST UNDER 37 C.F.R. § 1.322 FOR EXPEDITED CORRECTION OF A PATENT
DUE TO A MISTAKE BY THE OFFICE

Sir:

Through a mistake on the part of the Office, U.S. Patent No. 7,381,560 B2 was printed with the wrong sequence listing. The invention is claimed with reference to the sequence listing. Accordingly, patentee requests that the Office take corrective action.

Patentee requests that the Office issue a corrected patent as provided by § 1.322(b). In the alternative, patentee requests that the Office issue a Certificate of Correction as indicated in the attached 24 pages of forms PTO/SB/44.

The error is attributable solely to the Office. Patentee thus requests that the Office expedite the issuance of a corrected patent or Certificate of Correction. M.P.E.P. § 1480.01.

We believe that no fee is due in connection with this request. However, the Director may charge any fee that may be required to consider this paper or grant the requested relief to our Deposit Account 18-1260.

Nature of the mistake

The sequence listing that appears in the printed patent appears to be the original sequence listing filed with the application. This sequence listing differs from the sequence listing of record.

Several versions of the sequence listing were filed during the pendency of this application. Differences reflected in the final sequence listing include the presentation of 11 sequences, instead of 9 as shown in the patent, and a change in one of the sequences corresponding to the correction of a typographical error in one of the figures. See amendment filed on 22 August 2005. The sequence listing of record was filed on 13 December 2006.

The mistake in the printed patent document is material because all of the patent claims refer to sequences in the sequence listing. The sequences in the sequence listing were rearranged in the 22 August 2005 submission, and the revised arrangement was maintained in later submissions. Thus, the SEQ ID NOs: 4 and 6 in the sequence listing of record – the sequences recited in the patent claims – are not the same sequences as the SEQ ID NOs: 4 and 6 shown in the sequence listing printed in the patent.

The mistake appears to involve only the printed sequence listing. A review of public sequence databases suggests that the electronic sequence listing forwarded by the Office to GenBank is correct. See, e.g., GenBank accession nos. ACE50743.1 and ACE50744.1, corresponding to SEQ ID NOs: 4 and 6, respectively, in the sequence listing of record.

The mistake occurred through the fault of the Office

The sequence listing that should have been printed in the patent was properly entered in the official record of the application.

Both “paper” (*i.e.*, image document) and electronic versions of the sequence listing, together with a statement concerning their identity, were provided with a response to a non-final Office action filed on 13 December 2006. See Attachment 1. The sequence listing complied with all of the requirements of §§ 1.821-1.825. The “paper” version is present in the image file wrapper of the application. STIC personnel reviewed the electronic copy and determined that the sequence listing complied with the Office’s technical and formatting requirements. A paper confirming that the sequence listing had been entered in the Office’s

sequence database was entered in the file on 18 December 2006 (PALM code CRFE). See Attachment 2.

The change that prompted the sequence submission on 13 December 2006 was a revision to the inventors identified in the sequence listing in connection with a request to correct inventorship under § 1.48(b). See Attachment 3. The request to correct inventorship was formally approved in the Notice of Allowability mailed on 11 January 2008. See Attachment 4.

There is nothing in the record of this application that indicates the sequence listing filed on 13 December 2006 was not entered. Thus, that sequence listing is the one that should have been printed in the patent.

Relief requested

Because of the nature of the mistake, patentee believes it is appropriate for the Office to issue a corrected patent. § 1.322(b). As the mistake is attributable solely to the Office, as shown by the evidence in the Attachments that accompany this paper, patentee requests that the Office expedite the correction. M.P.E.P. § 1480.01.

If the Office determines that it should not issue a complete corrected patent, patentee requests that the Office promptly issue a Certificate of Correction based on the annexed 24 pages of forms PTO/SB/44.

The annexed forms were prepared directly from the data file submitted as the electronic copy of the sequence listing on 13 December 2006. The data fields that are not customarily printed in U.S. patents (*i.e.*, fields <110> through <151>, identifying the application) have been removed, and the field headings have been edited to include the English language identifiers used in other patents (*e.g.*, the title “NUMBER OF SEQ ID NOS:” has been added to field <160>). The forms have been paginated so that the identifying information for each SEQ ID NO begins on a new page for the convenience of the reader.

Conclusion

Patentee requests that the Office correct U.S. Patent No. 7,381,560, preferably by republication, 37 C.F.R. § 1.322(b), or alternatively by issuing a Certificate of Correction, § 1.322(a).

Respectfully submitted,

/David L. Fitzgerald/

David L. Fitzgerald, Reg. No. 47,347
Attorney for Biogen Idec Inc.

30 June 2008

SIDLEY AUSTIN LLP
1501 K Street, N.W.
Washington, DC 20005

tel. (202) 736-8818
fax (202) 736-8711

Electronic Acknowledgement Receipt

EFS ID:	1371263
Application Number:	09911692
International Application Number:	
Confirmation Number:	8484
Title of Invention:	Therapeutic application of chimeric and radiolabeled antibodies to human B lymphocyte restricted differentiation antigen for treatment of B cell lymphoma
First Named Inventor/Applicant Name:	Darrell R. Anderson
Customer Number:	47553
Filer:	David Laurence Fitzgerald
Filer Authorized By:	
Attorney Docket Number:	27693-01009
Receipt Date:	13-DEC-2006
Filing Date:	25-JUL-2001
Time Stamp:	16:01:04
Application Type:	Utility

Payment information:

Submitted with Payment	yes
Payment was successfully received in RAM	\$310
RAM confirmation Number	255
Deposit Account	181260
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 and 1.17	

File Listing:

ATTACHMENT 1 TO REQUEST FOR CERTIFICATE OF CORRECTION

Information:					
46	NPL Documents	White_Eur_J_Ca_1999.pdf	460990	no	3
Warnings:					
Information:					
47	NPL Documents	Witzig_ASH_1997.pdf	262958	no	3
Warnings:					
Information:					
48	NPL Documents	Witzig_J_Clin_Oncol_1999.pdf	239534	no	11
Warnings:					
Information:					
49	NPL Documents	Witzig_JCO-2453_2002.pdf	628265	no	11
Warnings:					
Information:					
50	NPL Documents	Witzig_ASH_abst-2805_1999.pdf	73036	no	1
Warnings:					
Information:					
51	Sequence Listing	09-911692_SL6.txt	27659	no	0
Warnings:					
Information:					
52		CP1C3_reply-IDS_13Dec05.pdf	206067	yes	30
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Amendment - After Non-Final Rejection		1	1	
	Specification		2	3	
	Abstract		4	4	
	Claims		5	7	
ATTACHMENT 1 TO REQUEST FOR CERTIFICATE OF CORRECTION					

	Applicant Arguments/Remarks Made in an Amendment	8	13		
	Specification	14	23		
	Request under Rule 48 correcting inventorship	24	24		
	Information Disclosure Statement (IDS) Filed	25	30		
Warnings:					
Information:					
53	Fee Worksheet (PTO-875)	fee-info.pdf	8390	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			58345658		
<p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p>					

ATTACHMENT 1 TO REQUEST FOR CERTIFICATE OF CORRECTION

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: 09/911,692 E
Source: IFW16
Date Processed by STIC: 12/18/2006

ENTERED

SERIAL NO. 09/911,692 - COPY OF SELECTED PAGES FROM IMAGE FILE WRAPPER

ATTACHMENT 2 TO REQUEST FOR CERTIFICATE OF CORRECTION

REMARKS**Amendments**

Per the examiner's request, applicant has reviewed and updated references to U.S. patent documents in the specification. Other amendments to the specification correct grammatical informalities.

The abstract is amended to provide references to host cells and methods of making purified antibodies, as described throughout the disclosure.

New claims 98 and 103 include the language of claims 70 and 72 and additionally recite that the host cell is capable of expressing and secreting an immunologically active chimeric anti-CD20 antibody. Claim 103 further recites that the host cell comprises promoter and signal sequences. Such host cells are described, e.g., at pages 20-21 of the specification. New claims 99 and 104 track the language of original claim 71.

New dependent method claims 100-102 and 105-107 parallel claims 76-78. As these claims correspond to a nonelected invention, they are marked "new-withdrawn" with the expectation that the examiner will consider them withdrawn under 37 C.F.R. § 1.142(b).

The amendments add no new matter to the disclosure.

Sequence listing

A substitute sequence listing accompanies this paper. The information fields in the sequence listing are revised to reflect the concurrently-filed amendment to the inventorship. Except for this revision, the new sequence listing is identical to the sequence listing it replaces. Thus, applicant submits that this amendment adds no new matter.

A computer-readable copy of the sequence listing is filed with this amendment via the Office's electronic filing facility. In compliance with 37 C.F.R. § 1.821(e), the undersigned states that the paper and computer-readable copies of the sequence listing are identical.

Notice of Allowability	Application No.	Applicant(s)	
	09/911,692	ANDERSON ET AL.	
	Examiner	Art Unit	
	Ron Schwadron, Ph.D.	1644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment of 6/8/07.
2. ☒ The allowed claim(s) is/are 98-102, 108, 109, 73-75.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

RONALD SCHWADRON
 PRINCIPAL EXAMINER
 GROUP 1600



1. The amendment of 6/8/07 has been entered.
2. The rejection of claims 70-75,98,99,103,104 under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention as per paragraph 5, section A) of the previous Office Action is withdrawn in view of the cancellation of claims that have been cancelled and the amended claims. The rejection of said claims as per paragraph 5, section B) of the previous Office Action is withdrawn in view of the cancellation of claims that have been cancelled, the amended claims and applicants arguments including the Reff declaration under 1.132.

3. In view of the papers filed 12/31/06, the inventorship in this nonprovisional application has been changed by the deletion of John E. Leonard.

The application will be forwarded to the Office of Initial Patent Examination (OIPE) for issuance of a corrected filing receipt, and correction of Office records to reflect the inventorship as corrected.

4. An extension of time under 37 CFR 1.136(a) is required in order to make an examiner's amendment which places this application in condition for allowance. During a telephone conversation conducted on 1/3/07, David Fitzgerald requested an extension of time for 5 MONTH(S) and authorized the Director to charge Deposit Account No. 18-1260 the required fee of \$2230.00 for this extension and authorized the following examiner's amendment. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

5. Claims 98 is directed to an allowable product. Pursuant to the procedures set forth in MPEP § 821.04(b), claims 100-102, directed to the process of making or using the allowable product, previously withdrawn from consideration as a result of a restriction requirement, is hereby rejoined and fully examined for patentability under 37 CFR 1.104.

ATTACHMENT 4 TO REQUEST FOR CERTIFICATE OF CORRECTION

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 24

PATENT NO. : 7,381,560 B2
APPLICATION NO.: 09/ 911,692
ISSUE DATE : 3 June 2008
INVENTOR(S) : D.R. ANDERSON et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Strike the entire sequence listing (col. 31/32, line 15, through col. 53/54, line 10)
and replace it with the following –

SEQUENCE LISTING

<160> NUMBER OF SEQ ID NOS: 11

<210> SEQ ID NO 1

<211> LENGTH: 8540

<212> TYPE: DNA

<213> ORGANISM: Artificial Sequence

<220> FEATURE:

<223> OTHER INFORMATION: vector

<220> FEATURE:

<223> OTHER INFORMATION: sense orientation

<400> SEQUENCE: 1

gacgtcgcgg	ccgctctagg	cctccaaaaa	agcctcctca	ctacttcttg	aatagctcag	60
aggccgaggc	ggcctcggcc	tctgcataaa	taaaaaaaat	tagtcagcca	tgcatggggc	120
ggagaatggg	cggaaactggg	cggagttagg	ggcgggatgg	gcggagttag	gggcggggact	180
atggttgctg	actaattgag	atgcatgctt	tgcatacttc	tgcttgctgg	ggagcctggg	240
gactttccac	acctggttgc	tgactaattg	agatgcatgc	tttgcatact	tctgctgctg	300

MAILING ADDRESS OF SENDER (Please do not use customer number below):

David L. Fitzgerald
Sidley Austin LLP, Attn. DC Patent Docketing
1501 K Street, NW, Washington, DC 20005

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

Page 2 of 24

PATENT NO. : 7,381,560 B2
 APPLICATION NO.: 09/ 911,692
 ISSUE DATE : 3 June 2008
 INVENTOR(S) : D.R. ANDERSON et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

ggggagcctg	gggactttcc	acaccctaac	tgacacacat	tccacagaat	taattccctt	360
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acgtcaataa	tgacgtatgt	tcccatagta	acgccaatag	ggactttcca	ttgacgtcaa	540
tgggtggact	atttacggta	aactgcccac	ttggcagtag	atcaagtgt	tcatatgcca	600
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gactttccaa	aatgtcgtaa	caactccgcc	ccattgacgc	aaatgggcgg	taggcgtgta	900
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tctgtcttca	tcttcccgcc	atctgatgag	cagttgaaat	ctggaactgc	ctctgtttgtg	1140
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ctccaatcgg	gtaactccca	ggagagtgtc	acagagcagg	acagcaagga	cagcacctac	1260
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acgtcaatga	cggtaaattg	cccgcctggc	attatgcca	gtacatgacc	ttatgggact	1800
ttcctacttg	gcagtacatc	tacgtattag	tcacgcctat	taccatgggtg	atgcgggtttt	1860

MAILING ADDRESS OF SENDER (Please do not use customer number below):

David L. Fitzgerald
 Sidley Austin LLP, Attn. DC Patent Docketing
 1501 K Street, NW, Washington, DC 20005

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 3 of 24

PATENT NO. : 7,381,560 B2
APPLICATION NO.: 09/ 911,692
ISSUE DATE : 3 June 2008
INVENTOR(S) : D.R. ANDERSON et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

ggcagtacat	caatggg	cggt	ggatagcggt	ttgactcacg	gggatttcca	agtctccacc	1920
ccattgacgt	caatggg	gaggt	ttgttttggc	accaaataca	acgggacttt	ccaaaatgtc	1980
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MAILING ADDRESS OF SENDER (Please do not use customer number below):

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 4 of 24

PATENT NO. : 7,381,560 B2
APPLICATION NO.: 09/ 911,692
ISSUE DATE : 3 June 2008
INVENTOR(S) : D.R. ANDERSON et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

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Page 5 of 24

PATENT NO. : 7,381,560 B2
APPLICATION NO.: 09/ 911,692
ISSUE DATE : 3 June 2008
INVENTOR(S) : D.R. ANDERSON et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

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ISSUE DATE : 3 June 2008
INVENTOR(S) : D.R. ANDERSON et al.

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PATENT NO. : 7,381,560 B2
 APPLICATION NO.: 09/ 911,692
 ISSUE DATE : 3 June 2008
 INVENTOR(S) : D.R. ANDERSON et al.

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<213> ORGANISM: Artificial Sequence

<220> FEATURE:
<223> OTHER INFORMATION: vector with chimeric antibody sequence

<220> FEATURE:
<223> OTHER INFORMATION: sense orientation

<400> SEQUENCE: 2

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atggttgctg actaattgag atgcatgctt tgcatacttc tgcttgctgg ggagcctggg	240
gactttccac acctggttgc tgactaattg agatgcatgc tttgcatact tctgcctgct	300
ggggagcctg gggactttcc acaccctaac tgacacacat tccacagaat taattcccct	360
agttattaat agtaatcaat tacgggggtca ttagttcata gcccatatat ggagttccgc	420
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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 11 of 24

PATENT NO. : 7,381,560 B2
APPLICATION NO.: 09/ 911,692
ISSUE DATE : 3 June 2008
INVENTOR(S) : D.R. ANDERSON et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 12 of 24

PATENT NO. : 7,381,560 B2
APPLICATION NO.: 09/ 911,692
ISSUE DATE : 3 June 2008
INVENTOR(S) : D.R. ANDERSON et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 13 of 24

PATENT NO. : 7,381,560 B2
APPLICATION NO.: 09/ 911,692
ISSUE DATE : 3 June 2008
INVENTOR(S) : D.R. ANDERSON et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 14 of 24

PATENT NO. : 7,381,560 B2
APPLICATION NO.: 09/ 911,692
ISSUE DATE : 3 June 2008
INVENTOR(S) : D.R. ANDERSON et al.

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PATENT NO. : 7,381,560 B2
 APPLICATION NO.: 09/ 911,692
 ISSUE DATE : 3 June 2008
 INVENTOR(S) : D.R. ANDERSON et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

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 <211> LENGTH: 384
 <212> TYPE: DNA
 <213> ORGANISM: Mus musculus

<220> FEATURE:
 <223> OTHER INFORMATION: sense orientation

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ISSUE DATE : 3 June 2008
INVENTOR(S) : D.R. ANDERSON et al.

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<210> SEQ ID NO 4
<211> LENGTH: 128
<212> TYPE: PRT
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<400> SEQUENCE: 4

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 17 of 24

PATENT NO. : 7,381,560 B2
APPLICATION NO.: 09/ 911,692
ISSUE DATE : 3 June 2008
INVENTOR(S) : D.R. ANDERSON et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<210> SEQ ID NO 5
<211> LENGTH: 420
<212> TYPE: DNA
<213> ORGANISM: Mus musculus

<220> FEATURE:
<223> OTHER INFORMATION: sense orientation

<400> SEQUENCE: 5

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gtacaactgc agcagcctgg ggctgagctg gtgaagcctg gggcctcagt gaagatgtcc	120
tgcaaggctt ctggctacac atttaccagt tacaatatgc actgggtaaa acagacacct	180
ggtcggggcc tgggaatggat tggagctatt tatcccggaa atggtgatac ttcctacaat	240
cagaagtcca aaggcaaggc cacattgact gcagacaaat cctccagcac agcctacatg	300
cagctcagca gcctgacatc tgaggactct gcggtctatt actgtgcaag atcgacttac	360
tacggcggtg actggtactt caatgtctgg ggcgcaggga ccacggtcac cgtctctgca	420

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Page 18 of 24

PATENT NO. : 7,381,560 B2
APPLICATION NO.: 09/ 911,692
ISSUE DATE : 3 June 2008
INVENTOR(S) : D.R. ANDERSON et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<210> SEQ ID NO 6
<211> LENGTH: 140
<212> TYPE: PRT
<213> ORGANISM: Mus musculus

<400> SEQUENCE: 6

Met	Gly	Trp	Ser	Leu	Ile	Leu	Leu	Phe	Leu	Val	Ala	Val	Ala	Thr	Arg	
1				5				10						15		
Val	Leu	Ser	Gln	Val	Gln	Leu	Gln	Gln	Pro	Gly	Ala	Glu	Leu	Val	Lys	
			20					25					30			
Pro	Gly	Ala	Ser	Val	Lys	Met	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	
		35					40					45				
Thr	Ser	Tyr	Asn	Met	His	Trp	Val	Lys	Gln	Thr	Pro	Gly	Arg	Gly	Leu	
50						55					60					
Glu	Trp	Ile	Gly	Ala	Ile	Tyr	Pro	Gly	Asn	Gly	Asp	Thr	Ser	Tyr	Asn	
65					70					75					80	
Gln	Lys	Phe	Lys	Gly	Lys	Ala	Thr	Leu	Thr	Ala	Asp	Lys	Ser	Ser	Ser	
				85					90					95		
Thr	Ala	Tyr	Met	Gln	Leu	Ser	Ser	Leu	Thr	Ser	Glu	Asp	Ser	Ala	Val	
			100					105					110			
Tyr	Tyr	Cys	Ala	Arg	Ser	Thr	Tyr	Tyr	Gly	Gly	Asp	Trp	Tyr	Phe	Asn	
		115					120					125				
Val	Trp	Gly	Ala	Gly	Thr	Thr	Val	Thr	Val	Ser	Ala					
130						135					140					

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Page 19 of 24

PATENT NO. : 7,381,560 B2
APPLICATION NO.: 09/ 911,692
ISSUE DATE : 3 June 2008
INVENTOR(S) : D.R. ANDERSON et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<210> SEQ ID NO 7
<211> LENGTH: 27
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence

<220> FEATURE:
<223> OTHER INFORMATION: impaired Kozak sequence and restriction enzyme site

<220> FEATURE:
<223> OTHER INFORMATION: sense orientation

<400> SEQUENCE: 7
gggagcttgg atcgatcctc tatggtt

27

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 20 of 24

PATENT NO. : 7,381,560 B2
APPLICATION NO.: 09/ 911,692
ISSUE DATE : 3 June 2008
INVENTOR(S) : D.R. ANDERSON et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<210> SEQ ID NO 8
<211> LENGTH: 47
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence

<220> FEATURE:
<223> OTHER INFORMATION: PCR Primer

<220> FEATURE:
<223> OTHER INFORMATION: sense orientation

<400> SEQUENCE: 8
atcacagatc tctcaccatg gattttcagg tgcagattat cagcttc

47

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PATENT NO. : 7,381,560 B2
APPLICATION NO.: 09/ 911,692
ISSUE DATE : 3 June 2008
INVENTOR(S) : D.R. ANDERSON et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<210> SEQ ID NO 9
<211> LENGTH: 30
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence

<220> FEATURE:
<223> OTHER INFORMATION: PCR Primer

<220> FEATURE:
<223> OTHER INFORMATION: antisense orientation

<400> SEQUENCE: 9
tgcagcatcc gtacgtttga tttccagctt

30

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Page 22 of 24

PATENT NO. : 7,381,560 B2
APPLICATION NO.: 09/ 911,692
ISSUE DATE : 3 June 2008
INVENTOR(S) : D.R. ANDERSON et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<210> SEQ ID NO 10
<211> LENGTH: 27
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence

<220> FEATURE:
<223> OTHER INFORMATION: PCR Primer

<220> FEATURE:
<223> OTHER INFORMATION: sense orientation

<400> SEQUENCE: 10
gcggctccca cgcgtgtcct gtccag

27

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Page 23 of 24

PATENT NO. : 7,381,560 B2
APPLICATION NO.: 09/ 911,692
ISSUE DATE : 3 June 2008
INVENTOR(S) : D.R. ANDERSON et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

```
<210> SEQ ID NO 11
<211> LENGTH: 29
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence

<220> FEATURE:
<223> OTHER INFORMATION: PCR Primer

<220> FEATURE:
<223> OTHER INFORMATION: antisense orientation

<220> FEATURE:
<221> misc_feature
<222> LOCATION: (1)..(29)
<223> OTHER INFORMATION: s is g or c

<220> FEATURE:
<221> misc_feature
<222> LOCATION: (1)..(29)
<223> OTHER INFORMATION: m is a or c

<220> FEATURE:
<221> misc_feature
<222> LOCATION: (1)..(29)
<223> OTHER INFORMATION: r is g or a
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PATENT NO. : 7,381,560 B2
APPLICATION NO.: 09/ 911,692
ISSUE DATE : 3 June 2008
INVENTOR(S) : D.R. ANDERSON et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<400> SEQUENCE: 11
ggstgttgtagctgmrg agacrgtga

29

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